

DESCRIPTIONS OF ONE NEW FAMILY, EIGHT NEW
GENERA, AND THIRTY-THREE NEW SPECIES OF
ICHNEUMON-FLIES.

By H. L. VIERECK,

Of the Bureau of Entomology, United States Department of Agriculture.

This paper is based chiefly upon material sent for determination to the Bureau of Entomology, United States Department of Agriculture, by economic entomologists. Many of the species treated are likely to become of economic importance.

MYERSIIDÆ, new family.

Related to the Agriotypidæ, from which it differs especially in the Ichneumonid habitus, in the propodeum having a superior and posterior face, in the first abdominal segment not being cylindrical, with the spiracles near the base or before the middle, but depressed, with the spiracles beyond the middle and with an apically dilated post-petiole, and in the character of the abdomen proper, which recalls the corresponding part in the Figitidæ on account of the second and third dorsal segments, constituting most of the abdomen beyond the first segment, the fused second and third dorsal segments overlapping on the ventral surface of the abdomen. Females winged with a scutel or wingless without a scutel. This family is erected for the reception of the following new genera and species:

MYERSIA, new genus.

Type of the genus.—*Myersia laminata*, new species.

Head approximately as long as wide as seen from in front, twice as wide as long antero-posteriorly as seen from above; temples and cheeks receding posteriorly, not attaining the same plane as the outermost outside line of the eyes; occipital carina present, distinct and complete, joining the lower, hind corner of the malar space near the junction of the oral carina with the malar space, above reaching close to the place of the uppermost outside line of the ocelli; face convex, the convexity extending distinctly beyond the foremost outside line of the eyes;

clypeus rather transversely elliptical, at least twice as wide as long down the middle, not distinctly separated from the face except laterally by reason of the presence of a foramin or fossa on each side between it and the malar space and base of mandibles, convex; mandibles compact, the left one overlapping the right one when flexed, its upper tooth reaching close to the base of the other mandible, its lower tooth distinctly shorter than the upper tooth and less developed; labrum exerted sufficiently to hide the upper edge of the mandible; malar space at least half as long as the eyes, separated from the face by a fine carina or raised line; palpi simple; antennæ simple, 18-jointed; notauli more or less developed on the anterior half of the mesonotum; sternaui wanting; lateral carinæ of mesonotum continued to the middle of the sides of the scutel, the latter ending in a poorly developed carina that is forked at apex; wings essentially as in *Agriotypus* (Walker) Curtis except in the second abscissa of the discoidal vein, which is hardly longer than the third, and in the neither angulated nor broken but vertical nervellus; onychium of hind legs as long as the third tarsal joint, claws simple, empodia well developed, nearly as long as the claws in the hind legs; propodeum areolated, the areola and petiolarea confluent, the areopetiolarea longitudinally concave and extending almost to the base of the propodeum, paracostulæ, or that portion of the apical transverse carina between the median and longitudinal carinæ, produced into a lamina that is directed upward and backward, spiracles of prodeum perfectly round and with a carina between them and the metapleuræ; spiracles of first segment projecting beyond the lateral outside line of the petiole and base of post-petiole; spiracles of the visible segments inconspicuous and round.

Named for Mr. P. R. Myers, who discovered this remarkable species.

MYERSIA LAMINATA, new species.

Type-locality.—Plummers Island, Maryland.

Type.—Cat. No. 15006, U.S.N.M.

Female.—Length 4 mm.; head, thorax, propodeum, and first abdominal segment black or blackish; mandibles, labrum and palpi mostly stramineous; antennæ brownish stramineous, becoming blackish toward tip; scape at least twice as long as thick; pedicel rather globular; joints of the flagel subequal, the first joint distinctly longer than the second and apparently five times as long as thick at base; all joints of the flagel longer than thick except the antepenultimate and penultimate joints which are as long as thick or nearly as long as thick; face rather dull, finely sculptured, clypeus more shining, with a few indefinite punctures; front and vertex finely reticulated, and with scattered small punctures; lateral ocelli as near or a little nearer to each other than to the eye margin, nearer to the anterior ocellus than to each other and as near or almost as near to the occipital carina as to the anterior ocellus; prescutum mostly sculptured like

the front, scapulæ smoother; sides of the pronotum and mesopleuræ striated as in the fossa between the mesonotum and scutel and the scutel itself at apex; wings transparent, brownish with dark brown to blackish stigma and veins, tegulæ stramineous; legs, including coxæ and trochanters, tramineous to brownish tramineous; propodeum more or less striate or granular or both, basal area transversely oblong, first and second pleural area confluent, third lateral and third pleural area confluent; metapleuræ roughened, not carinate; petiole planate, dull, finely sculptured, bounded on each side by a carina that forms the upper boundary of a shallow parallel sided furrow the lower, carinate boundary of which terminates at the spiracles, beyond which it reappears as the lateral margin of the postpetiole, the other carinæ continued on the postpetiole, where they converge and become lost among the striæ of the lateral thirds of the postpetiole; basal half of middle third of postpetiole sculptured like the petiole; rest of postpetiole longitudinally striate; rest of abdomen highly polished, dark brownish and blackish; exerted portion of ovipositor hardly as long as the petiole and brownish stramineous, sheaths of ovipositor attenuated and dark brown.

Labeled, "May 11, 1912, P. R. Myers collector."

THAUMATOTYPIDEA, new genus.

Type of the genus.—*Cremnodes tuberculatus* Ashmead.

This genus is erected for the wingless species of the Myersiidae placed in the genus *Thaumatotypus* (Foerster) Brischke by E. H. Strickland.¹

THAUMATOTYPUS (Foerster) Brischke.

Thaumatotypus FOERSTER, Verh. Naturh. Ver. Preuss. Rheinland, vol. 25, 1868, p. 172. No species.—BRISCHKE, Schrift. Naturf. Ges. Danzig, new ser., vol. 5, 1881, pt. 1, p. 349.

Type of the genus.—*Thaumatotypus femoralis* Brischke, first species included.

This genus is too briefly described to make its position certain. It may prove to belong to the Myersiidae.

Family BRACONIDÆ.

BUCCULATRIPLEX, new genus.

Type of the genus.—*Bracon bucculatricis* Ashmead.

Related to *Heterogamus* Wesmael, from which it differs especially in the *Polystenidea*-like abdomen, there being only four abdominal segments visible dorsally, in the second segment being nearly twice as long as the first and distinctly longer than the following segments

¹ Ann. Ent. Soc. Amer., vol. 5, 1912, pp. 114, 117, 139.

combined, in the trapezoidal second submarginal cell, in the simple propodeum with a petiolarea and a median longitudinal carina from the latter to the base, and in the faintly impressed sternauli.

CARDIOCHILES NIGRICEPS, new species.

Type-locality.—Savannah, Georgia.

Type.—Cat. No. 15007, U.S.N.M.

Female.—Length 7.4 mm.; head including antennæ and palpi, prescutum, scapulæ, pleuræ, wings, coxæ, trochanters, fore and mid femora, hind tarsi, tips of hind tibiæ and propodeum mostly black or blackish, elsewhere, excepting fore and mid tibiæ and tarsi which are dark brown or blackish, mostly reddish. Related to *C. viator* (Say) and *C. seminigra* (Cresson).

Allotype.—Essentially as in the type.

Labeled, "*Toxoneura nigriceps* Riley. No. 3956°, reared Aug. 10, 1886, from *Chloridea rhexia*, received from Mr. R. S. Barnoll."

A series of female paratypes labeled "Am. Sumatra Tobacco Co.," from Quincy, Florida, shows variation in color, one specimen in particular having the prescutum and scapulæ almost entirely reddish and the mid femora with a reddish stain. These departures from the typical specimens would seem to indicate that this species may prove to be a race of *C. viator* (Say) or *C. seminigra* (Cresson).

CHELONUS (CHELONUS) BUSCKIELLA, new species.

Type-locality.—Montserrat, Trinidad.

Type.—Cat. No. 15008, U.S.N.M.

Male.—Length 3.5 mm.; resembles *Chelonella buscki* Viereck, from which it can be distinguished by the flagel being more than 21-jointed, in the first joint of the flagel being brownish, in the pale portions of the veins being rather stramineous, in the brownish apices of the costa and basal vein, in the stramineous area of the carapace being confined between the outer edge of the carapace and the lateral carinæ and in the presence of a lateral spiracle near the base of the apical third of the carapace, the rim of the spiracle and the adjoining part of the carapace being reddish brown.

Labeled, "Collected June 29, 1905, A. Busck."

Named for Mr. August Busck.

HABROBRACONIDEA, new genus.

Type of genus.—*Habrobraconidea bicoloripes*, new species.

Related to *Habrobracon* (Ashmead) Johnson, from which it may be known by the antennæ being practically as long as the body and filiform, by the second abscissa of the cubitus being distinctly shorter than the first abscissa of the radius, by the presence of a median, longitudinal, embossed area on the second and third, dorsal, abdominal segments and by the *Atanycolus*-like habitus.

HABROBRACONIDEA BICOLORIPES, new species.

Type-locality.—Rainbow, Connecticut.

Type.—Cat. No. 15009, U.S.N.M.

Female.—Length 5 mm.; black and shining; first joint of flagel a little longer than the second, superior and posterior orbits, the latter above, more or less brownish; mesosternum brownish; wings infuscated, second abscissa of radius as long as or a little shorter than the first transverse cubitus and a little longer than the second transverse cubitus; hind coxæ, trochanters and femora reddish; propodeum with a median longitudinal brownish line; median longitudinal embossed area on the second dorsal abdominal segment extending a little beyond the middle, apex of second dorsal segment subemarginate, the false suture between the second and third segments, crenulate; abdomen reddish throughout and mostly polished, the second dorsal segment with a faint carina on the middle of each side; hypopygium sharply pointed and surpassing the pygidium; exerted portion of ovipositor nearly as long as the body.

Labeled, "No. 325, June 25, 1910, S. N. Spring." A paratopotype measures 3.5 mm. in length. The paratypes indicate that the sculpture of the second dorsal abdominal segment is subject to variation and that the basal embossed area on the third dorsal segment may be poorly developed or virtually wanting.

MACROCENTRUS AMICROPLOIDES, new species.

Type-locality.—Bethany Center, Genesee County, New York.

Type.—Cat. No. 15010, U.S.N.M.

Female.—Length 4 mm.; apparently related to *M. marginator* (Nees), from which it differs chiefly in the *Amicroplus*-like distal trochanters, the armature of which is atypical or apparently wanting, in the brownish face, in the anterior edge of the clypeus being arched rather than subemarginate, in the stramineous scape and pedicel, in the stramineous prothorax, in the rest of the thorax being brownish, in the almost colorless membrane of the wings, in the almost entirely stramineous legs, in the rather irregularly reticulate propodeum and in the sculpture of the third dorsal segment occupying most of the basal three-fourths of the segment.

Labeled, "June 26, 1911." Reared in association with *Archips argyrospila* by R. W. Braucher under his No. 136.

Allotype.—Essentially as in the type except in the much paler thorax.

Labeled, "C. U. Exp. No. 882, Sub. 3, June 18, 1911."

METEORUS ARCHIPSIDIS, new species.

Type-locality.—Bethany Center, Genesee County, New York.

Type.—Cat. No. 15011, U.S.N.M.

Female.—Length 4 mm.; stramineous; greatest diameter of lateral ocellus a little more than half as long as the shortest distance between the same and nearest eye margin; scape externally, pedicel and flagel mostly brownish or blackish; interocellar area blackish; prescutum anteriorly, parapsides or scapulæ and axillæ more or less brownish; wings almost colorless, tinged with brown, veins stramineous with a blackish tinge, stigma mostly blackish, pale only at base, basal third mostly stramineous; onychii mostly brownish, hind tibiæ and hind metatarsi with brownish tips, second and third tarsal joints of hind legs mostly brownish, rest of legs like the face and palpi very pale stramineous; metanotum blackish; propodeum blackish, without a basal transverse carina, with a complete petiolarea and a well defined median longitudinal carina; first dorsal segment blackish to brownish, with a fossa on each side near the postpetiole, the postpetiole with longitudinal striæ except down the middle, the striæ converging posteriorly, second segment and basal half of third segment yellowish, rest of abdomen reddish except for a blackish, median, longitudinal stain; ovipositor when completely exerted apparently a little longer than the abdomen.

Labeled, "Bred from *Archips argyrospila*, June 24 1911, Braucher No. 122."

NOSERUS POMIFOLIELLAE (Ashmead).

Bracon pomifoliellæ ASHMEAD, Proc. U. S. Nat. Mus., vol. 11, 1888, p. 620.

APANTELES (PROTAPANTELES) HARNEDI, new species.

Type-locality.—McNeill, Mississippi.

Type.—Cat. No. 15013, U.S.N.M.

Female.—Length 2.5 mm.; related to *A. (P.) parorgyæ* Ashmead, with which it agrees in having the vertical axis of the thorax as long as the transverse axis or longer, in the head being as broad or broader than long, in the stramineous tegulæ, rather dull outer face of hind coxæ, the latter being mostly pale reddish or stramineous, the mostly impunctate scutel, the punctures of which are rather large, in the pleuræ not being separated from the mesosternum by a carinate fold, in the propodeum having a median longitudinal carina, in the first, dorsal, abdominal plate being wider at apex than the second, dorsal, abdominal plate is long down the middle or than the former is wide at base and mostly rugose or rugulose, in the second, dorsal, abdominal plate being trapezoidal and in the third, dorsal, abdominal segment being sculptured at base, but differs chiefly in the black scape and pedicel, in the blackish labrum and mandibles, in the blackish hind

tarsi and in at least half of the third, dorsal, abdominal segment being rather coarsely sculptured.

In the type there are blackish tips to the hind femora and the dorsum of the abdomen beyond the first segment is mostly tinged with black, while in the paratopotype these parts are mostly reddish.

Cocoons solitary and yellowish. Received from Prof. R. W. Harned, Agricultural College, Mississippi.

Named for Prof. R. W. Harned.

APANTELES (PROTAPANTELES) OXYACANTHOIDIS, new species.

Type-locality.—Maine.

Type.—Cat. No. 15014, U.S.N.M.

Female.—Length 2.5 mm.; facial line shorter than the transfacial line; antennæ blackish throughout, all joints of the flagel distinctly more than twice as long as thick; pleuræ not separated from the mesosternum by a carinate fold; scutel mostly impunctate, the interstices smooth and polished, the punctures small and indistinct, tegulæ blackish; thorax not depressed, vertical axis apparently greater than the transverse axis; wings with a brownish tinge, stigma and costa blackish, other veins stramineous with a dark tinge; coxæ blackish at base, more or less stramineous to brownish beneath, rest of legs mostly stramineous, onychii blackish; propodeum coarsely sculptured, the longitudinal carina almost lost among the rugæ; abdomen longer than the thorax; first dorsal plate wider at apex than at base and wider at apex than the second plate is long down the middle; second dorsal plate sculptured throughout, not distinctly depressed along the apical margin; third dorsal segment indistinctly sculptured to beyond the middle.

Labeled, "Me. Exp. Sta. Lot. 1478, June 4, 1912."

Paratypes are from New Haven, where the writer collected them May 14, 1904, on flowers of *Ribes oxyacanthoides*.

This species is related to *A. (Protapanteles) delicatus* Howard, from which it differs in the length of the abdomen, more shining face and dark mouth.

ROGAS LAPHYGMÆ, new species.

Type-locality.—Brownsville, Texas.

Type.—Cat. No. 15012, U.S.N.M.

Female.—Length, 4 mm.; has characters in common with *R. nolo-phanzæ* Ashmead, but can be distinguished from that species by the hardly emarginate eyes, by the greatest diameter of the lateral ocelli being apparently shorter than the ocellocular line, by the 35-jointed antennæ, which are mostly brown or brownish, by the second abscissa of the radius being hardly longer than the first transverse cubitus, by having only the basal half of third dorsal abdominal segment striated and the fourth not at all striated.

Labeled, "Webster No. 6446, Exp. D., reared from *Laphygma frugiperda*, R. A. Vickery, collector."

APANTELES (STENOPLEURA) CHILOCIDA, new species.

Type-locality.—Japan.

Type.—Cat. No. 15015, U.S.N.M.

Female.—Length, 2 mm.; antennæ dark brown to blackish, mouth mostly pale; tegulæ, wing base, and stigma pale stramineous, wings with a brownish tinge, veins stramineous, legs, excepting hind coxæ, which are blackish, mostly stramineous to reddish stramineous; scutel polished, almost impunctate; propodeum rugulose, without a median, longitudinal carina; first and second dorsal abdominal plates rugulose, the former wider at apex than at base and approximately as wide at apex as the second plate is long down the middle, the second dorsal abdominal plate a little longer than the third dorsal abdominal segment which latter is perfectly smooth, polished and brownish, the remaining dorsal segments polished and blackish, the ventral, abdominal segments mostly pale; ovipositor hardly exerted.

Labeled, "*Chilo simplex*, No. 7, Kuwana, Coll., 1910."

APANTELES (STENOPLEURA) DEPRESSUS, new species.

Type-locality.—Lafayette, Indiana.

Type.—Cat. No. 15016, U.S.N.M.

Female.—Length, 1.5 mm.; antennæ mostly blackish, scape pale beneath; scutel virtually sculptureless; wings transparent with a brownish tinge; tegulæ stramineous; legs mostly reddish stramineous, tarsi more or less brownish, fore and mid coxæ black at base, hind coxæ almost entirely black; pleuræ not separated from the mesosternum by a carinate fold, not at all differentiated; propodeum rugulose, with a distinct median longitudinal carina; first dorsal plate, if anything, a little wider at apex than at base, apical margin nearly straight and distinctly wider than the second plate is long down the middle; first plate nearly one and one-half times as long as wide at apex and uniformly rugulose; second plate trapezoidal, uniformly rugulose, wider at apex than at base and nearly three times as wide at apex as long down the middle; third dorsal segment sculptured on the basal third; hypopygium hardly surpassing the pygidium; ovipositor barely exerted.

Labeled, "Reared from Tortricid larva, July 28, 1911; J. J. Davis, collector; Webster No. 7627."

Allotopotype.—Essentially as in the type, but the sides of the first plate rather arcuate.

Data same as for the type.

Of the species of *Protapanteles* this comes nearest to *Protapanteles rileyanus* Viereck.

APANTELES (STENOPEURA) PODUNKORUM, new species.

Type-locality.—Berlin, Connecticut.

Type.—Cat. No. 15017, U.S.N.M.

Female.—Length, 1.75 mm.; black; head apparently as wide as long, antennæ dark brown, labrum and mandibles mostly brownish, palpi pale; tegulæ brownish; scutell almost impunctate; wings transparent, tinged with brown, costa, stigma, radius, transverse cubitus, and second and third abscissæ of the cubitus brownish, remaining veins mostly colorless or at most a paler brownish stramineous than the stigma; coxæ black, trochanters more or less dark, rest of legs mostly stramineous with the hind femora and tibiæ rather reddish with fuscous tips; mesopleuræ not separated from mesosternum by a carinate fold; propodeum rugulose, distinctly carinate down the middle; first dorsal plate distinctly wider at apex than at base or than the second is long down the middle, the latter plate not sculptured all over, mostly shining with indefinite sculpture, third dorsal segment not sculptured at base or elsewhere except for a few scattered punctures; ovipositor hardly exerted.

Labeled, "Emerged Feb. 14, 1911, No. 330." Probably parasitic on *Pyrausta futilalis*.

Family ICHNEUMONIDÆ.

ANGITIA PLUTELLÆ, new species.

Type-locality.—Rocky Ford, Colorado.

Type.—Cat. No. 15018, U.S.N.M.

Female.—Length, 4 mm.; related to *A. hellulæ* Viereck, from which it may be known by the entirely black dorsal segments of the abdomen, by the second abscissa of the discoidal vein being distinctly longer than the third, by the hind metatarsus being mostly whitish on its basal half and by the parallel sided postpetiole, which is more oblong or apparently one and one-half times as long as broad.

Labeled, "Bred from *Plutella omissa*, Apr. 23, 1912, H. O. Marsh, collector."

Allotype.—Essentially as in the type. Data same as in the type.

This may be the same as (*Limneria*) *Angitia* ? *plena* (Provancher).

ANISITSIA NIGERRIMA, new species.

Type-locality.—Priest Lake, Idaho.

Type.—Cat. No. 15019, U.S.N.M.

Female.—Length, 14 mm.; almost entirely black; fore tibiæ and tarsi rather dark brown; wings tinged with brown, the veins blackish; nervellus distinctly bent below the middle, antefurcal; first part of membranous portion on the underside of the second dorsal segment with its apex remote from the spiracles or not as near the spiracles

of the second dorsal segment as the latter are to the lateral edge of the segment.

Labeled, "Aug., 1901; C. V. Piper, collector."

BARYDOTIRA HAMMARI, new species.

Type-locality.—North East, Pennsylvania.

Type.—Cat. No. 15020, U.S.N.M.

Female.—Length, 3.5 mm.; judging from Schmiedeknecht's classification of European Hemitelini, this is related to *Hemiteles coriarius* Taschenberg, from which it may be known by the polished head and thorax, by the brownish stramineous legs, including the coxæ, by the stramineous tegulæ, by the absence of the longitudinal carinæ beyond the apical transverse carina; by the first segment except its apical margin, the second except its apical fourth, and the third except its apical half being granularly sculptured, the rest of the abdomen being polished and by the shorter ovipositor, the exerted portion of which is hardly longer than the first segment.

In this species the wings are brownish and the areola and basalarea confluent.

Labeled, "Quaintance No. 3335, June 25, 1909; A. G. Hammar, collector."

In two female paratopotypes the areola is more or less regularly separated from the basal area by a carina; in one female paratopotype the petiolarea is divided longitudinally down the middle by a carina—evidently a monstrosity. Paratopotype with the same data except that two are labeled, "No. 3734, Host 3323, Aug. 9, 1909."

Named for Mr. A. G. Hammar.

BATHYTHRIX KUWANÆ, new species.

Type-locality.—Nishigahara, Tokio, Japan.

Type.—Cat. No. 15021, U.S.N.M.

Female.—Length 4 mm.; apparently nearest to *Hemiteles stagnalis* Thomson, as redescribed by Schmiedeknecht but differs as follows: Vertex and mesonotum polished; antennæ hardly 4 mm. long; first segment almost polished; scape, pedicel, first joint of flagel, most of legs, including coxæ and most of abdomen stramineous; postpetiole as long as the petiole and hardly wider, the apical half of the middle longitudinal third pale; elsewhere the first segment is black; second segment blackish laterally on the basal two-thirds, the rest of the segment with a stramineous, funnel-shaped mark; third segment with a blackish mark on each side, leaving an hour-glass shaped stramineous mark; fourth segment blackish at base; rest of abdomen mostly stramineous.

Labeled, "from larva of *Lema flavipes*; S. T. Kuwana, collector."

Named for Prof. S. T. Kuwana.

If this species is held to have a median longitudinal keel on the pronotum, there being a suggestion of such a keel, then it might be said to be related to *Hemiteles alpivagus* Strobl in Schmiedeknecht's arrangement.

CALLICRYPTUS MAGNIFICUS, new species.

Type-locality.—Guatemala City, Guatemala.

Type.—Cat. No. 15022, U.S.N.M.

Female.—Length 14 mm.; apparently related to *Cryptus*? *xanthostigma* Brullé, as figured in Cameron's *Biologia Centrali Americana* article, from which it can be distinguished as follows: Rich maroon, fifth joint more or less yellow like the eleventh and twelfth, the joints between these completely yellow; fore legs concolorous with the body, except coxæ, trochanters, femora above and on basal half beneath and tarsi which are more or less black; mid and hind legs virtually completely black or blackish; post-petiole finely reticulated or granular in appearance, third dorsal segment black at base.

Collected by Mrs. W. P. Cockerell.

CALLIPHURUS? TÆNIOGASTER, new species.

Type-locality.—North East, Pennsylvania.

Type.—Cat. No. 15023, U.S.N.M.

Male.—Length 4.5 mm.; head finely punctured, shining; face, a border along inner eye margin to top of eyes, cheeks, malar space, clypeus, mandibles, except tips, scape and pedicel beneath, most of prothorax, fore and mid coxæ and proximal trochanters and apical edge of third and following dorsal abdominal segments yellow; head wider than long, greatest diameter of lateral ocelli apparently a little shorter than shortest distance between the same and nearest eye margin; first joint of flagel nearly one and one-half times as long as the second; head beneath, mouth and palpi yellowish, vertex and occiput mostly blackish; mesopleuræ, mesosternum and metapleuræ mostly pale brown, rest of thorax mostly black or blackish; propodeum mostly blackish, with a transverse furrow at base, basalarea open at base, rather quadrate, costulæ incomplete, areola longer than wide, apical transverse carina complete, propodeum with three areæ beyond the apical transverse carina; fore and mid distal trochanters, femora, tibiæ and tarsi, hind coxæ, trochanters and femora mostly stramineous, hind tibiæ and tarsi mostly infuscated; abdomen mostly black above, yellowish beneath, first segment at least twice as wide at apex as at base, with a fossa on each side near the base, the middle third with two posteriorly diverging carinæ, spiracles in the middle, postpetiole rugulose; second segment finely sculptured, apparently half again as long as wide at base, spiracles as near to each other as to the apex, thyridia at base; third segment less sculptured than the second; the succeeding segments almost sculptureless.

Labeled, "Quaintance No. 3355, May '08."

CAMPOPLEX EPINOTIÆ, new species.

Type-locality.—Carmel, California.

Type.—Cat. No. 15024, U.S.N.M.

Female.—Length 7 mm.; related to (*Limnerium*) *Campoplex nigricincta* Ashmead, from which it can be distinguished by the blackish hind femora, by the scape being blackish beneath and by the larger size. The characters held in common by these two species are the quadrate head with the outside line of eyes and temples nearly in the same plane and the length of the greatest diameter of the lateral ocelli which is as great as or greater than the distance between the latter and the nearest eye margin.

Labeled, "Kearfott No. 606, from *Epinota arctostaphyлина*, July 6."

CAMPOPLEX POLYCHROSIDIS, new species.

Type-locality.—Hyattsville, Maryland.

Type.—Cat. No. 15025, U.S.N.M.

Female.—Length 5.5 mm.; greatest diameter of lateral ocelli distinctly shorter than the shortest distance between the latter and nearest eye margin; scape and pedicel brownish stramineous beneath; fore and mid legs including coxæ mostly brownish stramineous, hind legs with their coxæ black, their femora rather reddish, elsewhere mostly brownish stramineous; propodeum not channeled; abdomen mostly reddish, first segment except at apex, basal half of second dorsal segment and the remaining dorsal segments medially, more or less black or blackish; exerted portion of ovipositor approximately as long as the thorax.

Labeled, "Kearfott No. 694, from *Polychrosis carduiana*, Aug. 6."

Paratopotypes with the same data as the type.

Paratype labeled, "Kearfott No. 262, from *Platyptilia carduidactyla*, Richmond Hill, New York, July 12."

CASINARIA EUPITHECIÆ, new species.

Type-locality.—East River, Connecticut.

Type.—Cat. No. 15026, U.S.N.M.

Female.—Length 5.5 mm.; greatest diameter of lateral ocellus distinctly greater than distance between latter and nearest eye margin; scape and pedicel more or less pale beneath, mandibles yellow with brown tips, palpi stramineous; tegulæ and wing base yellow; fore and mid coxæ black with brownish tips, fore and mid trochanters mostly stramineous, fore femora and tibiæ and mid femora rather reddish stramineous, fore tarsi stramineous with the onychium brownish, mid tibiæ and tarsi pale, tinged with brown, hind coxæ and proximal trochanters mostly black, distal trochanters of hind legs pale, tinged with brown, hind femora reddish brown, hind tibiæ yellowish at base, their underside and middle third mostly pale

brown, elsewhere dark brown, spurs whitish, hind metatarsus whitish at base, elsewhere brown as are the other hind tarsi; dorsal abdominal segments almost entirely black, thyridia pale, venter mostly dark brown; ovipositor when exerted a little longer than the second segment.

Labeled, "Reared from *Eupithecia miserulata*, Aug. 27, 1910; Chas. R. Ely."

Allotopotype.—Essentially as in the type.

Labeled the same as the type excepting the date, which is Sept. 10, 1910.

A paratopotype is dated Sept. 8, 1910.

A paratype is labeled, "Stafford, Conn., Aug. 24, 1905; Solidago, W. E. Britton."

The cocoon is brownish at both ends with a rather whitish girdle and measures 5 by 2 mm.

CREMASTIDEA, new subgenus.

Type.—*Cremastus* (*Cremastidea*) *chinensis*, new species.

Compared with *Cremastus* Gravenhorst as represented by *Cremastus bellicosus* Gravenhorst, this genus differs chiefly in the malar space being virtually crowded out by the eye and by the porpodeum overlapping the hind coxæ to the middle or a little beyond the middle of the latter.

CREMASTUS (CREMASTIDEA) CHINENSIS, new species.

Type-locality.—Soochow, China.

Type.—Cat. No. 15027, U.S.N.M.

Male.—Length 9 mm.; yellowish stramineous; mandibles with blackish tips, interocellar area blackish; ocelli almost equidistant from each other, the lateral ocelli nearer to the anterior ocellus than to each other and almost impinging on the eye margin; flagel brownish, first joint distinctly longer than the second; tibiæ more or less darkened with brownish stains; basal area almost forming an equilateral triangle, areola pentagonal, almost half as long as the propodeum and apparently a little longer than the petiolarea; petiole with a shallow fossa on each side near the postpetiole; second dorsal segment finely, longitudinally sculptured, the other dorsal segments more or less finely, indefinitely sculptured; the sutures between the first and second segments blackish.

Labeled, "from N. Gist Gee."

Allotype.—Length 8 mm.; ocellocular line nearly half as long as the shortest diameter of the lateral ocellus; malar space nearly as long as the first joint of the flagel is thick at base; otherwise essentially as in the type.

Labeled, "from *Naraga diffusa*?, Konosu Saitama, Japan; T. Fukai collector."

Paratypes from Japan are labeled "*Chilo simplex*, 1910; Kuwana collector."

CRYPTUOPSIS MICROGASTER, new species.

Type-locality.—Quirigua, Guatemala.

Type.—Cat. No. 15028, U.S.N.M.

Male.—Length 10 mm.; apparently related to *Mesostenus? megapoda* Cameron, as figured and described in Cameron's *Biologia Centrali Americana* article, from which it may be distinguished as follows: Antennæ not stout, not as long as the body, face not at all transversely striated, center of vertex not aciculated, front black with a yellow orbital margin continuous with the yellow ornamentation of the face, the latter not broken by black marks or lines; malar space and lower half of cheeks yellow, occipital carina prominently elevated near the malar space; mesonotum punctured, becoming rugulose in the middle of the posterior half; metapleuræ yellow, broadly margined with black; propodeum mostly, rather reticulated, black with the tubercles and area intimately surrounding the tubercles yellow; fore and mid coxæ blackish at base, fore and mid femora rather reddish stramineous above, onychii, and third and fourth tarsal joints of all legs blackish, mid legs with the apex of the first tarsal joint and the second tarsal joint also blackish, hind legs mostly black except the coxæ above, distal joint of trochanters and basal third of hind tibiæ which are yellowish; first dorsal segment yellow with a subapical transverse black band, the following dorsal segments black with an apical yellow margin, abdomen ventrally mostly yellow.

Collected by Mrs. W. P. Cockerell.

CYMODUSOPSIS, new genus.

Type of the genus.—*Cymodusopsis aristoteliæ*, new species.

Related to *Idechthis* (Foerster) Ashmead, from which it differs, especially in the hairy eyes that converge below in the female as in *Cymodusa* Holmgren and by the absence of an areolet.

CYMODUSOPSIS ARISTOTELIÆ, new species.

Type-locality.—Kirkwood, Missouri.

Type.—Cat. No. 15029, U.S.N.M.

Female.—Length 4.5 mm.; scape and pedicel yellowish beneath, rest of antennæ brownish to blackish; mandibles yellowish with brownish tips; palpi whitish; tegulæ, base of wings, coxæ and trochanters of fore and mid legs, fore and mid tibiæ above, most of fore and mid tarsi, distal trochanters of hind legs and plica, yellowish; hind coxæ blackish; hind tibiæ with the middle third yellowish; hind, proximal trochanters blackish, femora reddish stramineous, hind metatarsi whitish at base, rest of legs mostly brownish; areola and petiolarea confluent, costulæ poorly developed; second dorsal

segment reddish apically, the following segments with the sides mostly reddish, otherwise the abdomen is black above; exerted portion of ovipositor nearly as long as the first segment.

Labeled, "Parasite on No. 231 M. *Aristotelia pudibundella* Zell. Oct. 15, 1881."

Allotopotype.—Essentially as in the type, except that the eyes hardly converge beneath. Labeled the same as the type.

ECTOPIMORPHA, new genus.

Type of the genus.—*Amblyteles anceps* (Cresson).

Related to *Hypomecus* Wesmael in having the eighth dorsal abdominal segment exerted, but in the propodeal spiracles quite as in typical *Amblypygi*, in which group it indubitably belongs.

PIMPLA (EPIURUS) KUWANÆ, new species.

Type-locality.—Japan.

Type.—Cat. No. 15030, U.S.N.M.

Female.—Length 7.5 mm.; related to *P. (E.) brevicornis* Gravenhorst, from which it may be known by the flagel being yellowish to pale brown beneath, by the notauli not being distinctly impressed anteriorly, by the entirely stramineous stigma, by the nervellus being branched near the middle, by the hind tarsi excepting the basal half of metatarsus being uniformly brownish, by the poorly defined or wanting lateral carinæ of the first, dorsal, abdominal segment, and by the exerted portion of the ovipositor being distinctly shorter than the abdomen, but nearly two-thirds the length of the latter.

Labeled, "No. 4, host—*Parnara guttatus* Kuwana Coll."

HERPESTOMUS HYFONOMEUTÆ, new species.

Type-locality.—Japan.

Type.—Cat. No. 15031, U.S.N.M.

Female.—Length 6.5 mm.; related to *H. brunneicornis* (Gravenhorst), from which it differs chiefly in the blackish antennæ, black clypeus, blackish mandibles, mostly dark to blackish hind tibiæ and tarsi, and in the abdomen being black except for the rather stramineous apical margin to the second segment.

Labeled, "Ex. *Hyponomeuta malinellus* on apple; S. T. Kuwana, P. J. Parrott, dedit."

Allotype.—Essentially as in the type except that the face, clypeus, basal half of mandibles and antennæ beneath are yellowish or luteous.

Data same as for the type.

One male paratopotype has the sides of the second, third, and fourth segments more or less reddish.

HYPOSOTER DIVERSICOLOR, new species.

Type-locality.—East River, Connecticut.

Type.—Cat. No. 15032, U.S.N.M.

Female.—Length 5.5 mm.; related to *H. parorgyia* Viereck, from which it differs especially in the following particulars: Lateral ocelli nearer the eye than to the anterior ocellus; clypeus mostly yellowish; scape uniformly dark stramineous beneath, pedicel paler beneath than the scape; fore and mid coxæ yellowish, hind legs with coxæ, trochanters and femora more or less reddish, their tibiæ reddish brown, pale at base, with a subbasal and apical dark-brown band, their tarsi dark brown; basal area rather petiolate triangular; abdomen reddish with the first segment, basal two-thirds of second segment, excepting thyridia, third basally, fourth to sixth dorsally, black or blackish; abdomen truncate at apex, its ovipositor hardly as long as the truncature, abdomen, apically, compressed.

Labeled, "No. 145, from larva on hickory, July 7, 1910; Chas. R. Ely."

Cocoon covered with loose rather whitish gray silk and apparently 5 by 2 mm.

HYPOTHEREUTES ELYI, new species.

Type-locality.—East River, Connecticut.

Type.—Cat. No. 15033, U.S.N.M.

Female.—Length 5 mm.; related to *H. caradrinæ* Viereck, from which it may be known by the malar line being shorter than the mandibles are wide at base, by the scape being yellow beneath, by the fore and mid coxæ and all trochanters being almost entirely pale yellowish, by the mostly brownish stramineous fore and mid tibiæ and femora, by the reddish hind coxæ and femora, by the nervellus being angulated, by the areola being a little longer than wide, and by the dorsal abdominal segments being black except for the brownish thyridia, rather stramineous apical margin to the second segment and the rather reddish spot on each side of the third segment. Plica yellowish.

Labeled, "July 30, 1910; Chas. R. Ely."

Named for Dr. Charles R. Ely.

HYPOTHEREUTES NIGROLINEATUS, new species.

Type-locality.—Springer, New Mexico.

Type.—Cat. No. 15034, U.S.N.M.

Female.—Length 5 mm.; related to *H. caradrinæ* Viereck, from which it can be distinguished by the rather parallel-sided attenuate areola, which is at least twice as long as wide, by the more slender, entirely black, first abdominal segment, the postpetiole of which is rather oblong than quadrate, by the second segment being mostly

black and nearly twice as long as wide at apex, and by the remaining segments having a black stripe down the middle.

Labeled, "9. 3. '09, 9. 1. '09; C. N. Ainslie, collector; Webster No. 5535; host *Heliophila albilinea*."

Allotopotype.—Essentially as in the type; the sixth and seventh segments apparently entirely black.

Labeled the same as the type.

Two males from the same lot as the above specimens agree with the allotopotype except in the presence of a more or less distinct fossa on each side of the petiole, indicating that they belong to *Angitia* Holmgren. The existence of these males throws a doubt on the validity of *Hypotherutes* (Foerster) Ashmead as a genus or subgenus.

ICHNEUMON KLAGESI, new name.

Proposed for *I. flavofascialis* Viereck,¹ which is preoccupied by *I. (Probolus) flavofascialis* Viereck.²

Named for Mr. H. G. Klages, who collected the species.

PIMPLA (ISEROPUS) VIDUIFORMIS, new species.

Type-locality.—New Haven, Connecticut.

Type.—Cat. No. 15035, U.S.N.M.

Male.—Length 8.5 mm.; this may prove to be the male of *Pimpla vidua* Walsh, the female of which alone is known. From Walsh's description of the above species this differs in the antennæ, being yellow to brownish beneath, blackish above, in the punctured propodeum, which has its angles tipped with yellow, in the absence of a reddish spot above the mid coxæ, in the venter being yellowish and blackish, in the mid coxæ and trochanters being almost entirely yellowish, in the mid tibiæ being without a trace of an annulus, in the hind legs having the coxæ and femora reddish throughout and their trochanters yellow, in the hind tibiæ having the apical third blackish, and in the parts mentioned as white in Walsh's description being yellow.

Labeled, "No. 322, Apr. 20, 1910; A. B. Champlain."

The smallest paratopotype is scarcely 7 mm. long and has a subapical reddish transverse, medially more or less interrupted reddish stripe on the second to sixth dorsal abdominal segments, inclusive.

MALLOCHIA, new genus.

Type of the genus.—*Mallochia agenoides*, new species.

Related to *Crypturopsis* Ashmead, from which it differs especially in the propodeum being distinctly longer down the middle than wide at apex, without spines or tubercles and with a poorly developed basal transverse carina, other carinæ wanting, in the poorly devel-

¹Trans. Amer. Ent. Soc., vol. 32, 1906, p. 245.

²Trans. Kansas Acad. Sci., vol 19, 1905, p. 291.

oped sternauli, which are represented merely by a slight depression of the tegument and a difference in sculpture, in the occipital carina not being humped just before reaching the oral carina, and in the postpetiole, which is nearly twice as long down the middle as wide at base.

Named in honor of my colleague, Mr. J. R. Malloch.

MALLOCHIA AGENIOIDES, new species.

Type-locality.—Glencarlyn, Virginia.

Type.—Cat. No. 15036, U.S.N.M.

Female.—Length 7.5 mm.; head, including the scape, mostly reddish and shining; lateral ocelli a little nearer to each other than to the nearest eye margin and distinctly nearer to the anterior ocellus than to each other; pedicel and basal half of first joint of flagel rather reddish, tinged with brown, rest of flagel mostly blackish excepting the fifth, sixth, seventh, eighth, and ninth joints, which are mostly or at least partly yellow above; basal half of mandibles rather stramineous, the apical half blackish; thorax reddish, shining, and mostly punctured, excepting the scutel, which is rather stramineous, almost impunctate, and polished; cubitus hardly apparent beyond the recurrent vein, stigma mostly stramineous, veins blackish, wings with a smoky band before the tip, running nearly parallel with the recurrent vein, and a smoky spot occupying part of the discocubital, second and third discoidal cells; legs, including coxæ and trochanters, mostly reddish, the onychiæ brownish to blackish; propodeum reddish and distinctly, rather transversely, sculptured; abdomen rather subtle, through the presence of sculpture and reddish; petiole perfectly smooth and polished except for a few scattered punctures and delicate sculpture; postpetiole in sculpture similar to the petiole; sheaths of the ovipositor blackish and apparently 3 mm. long.

Collected June 9, 1912, by Mr. J. R. Malloch.

NEONORTONIA, new subgenus.

Type.—*Casinaria* (*Neonortonia*) *genuina* (Norton).

Related to *Casinaria* Holmgren as represented by *C. claviventris* Holmgren, with which it agrees in the produced portion of the propodeum extending practically to the middle of the hind coxæ and in the virtually exareolate propodeum, but can be distinguished by the different *Trophocampa*-like habitus and in the neither angulate nor branched nervellus.

NEOPRISTOMERUS, new genus.

Type of the genus.—*Pristomerus appalachianus* Viereck.

Related to *Pristomerus* Holmgren, from which it can be distinguished especially by the terminal abscissa of the cubitus and subdiscoidal vein being mostly represented by almost colorless streaks

and by the inner margins of the eyes in both sexes being nearly parallel and far removed from the lateral ocelli.

To this genus very likely belong *Pristomerus coloradensis* Brues and *P. pacificus* Cresson.

(PRISTOMERUS) NEOPRISTOMERUS APPALACHIANUS var. DORSOCASTANEUS Viereck.

Brownsville, Texas.

Labeled, "Webster No. 6446, reared from *Laphygma frugiperda*; R. A. Vickery, collector."

PIMPLA (PIMPLA) PARNARÆ, new species.

Type-locality.—Japan.

Type.—Cat. No. 15037, U.S.N.M.

Female.—Length 16 mm.; related to *P. pluto* Ashmead, from which it differs especially in the metapleuræ not being striate throughout, in the first, dorsal, abdominal segment not being carinate laterally, but rounded off, and in the dorsal aspect being rounded off where it joins the anterior aspect and not developed into a node on each side.

Labeled, "Host *Parnara guttatus* Burm. No. 3; S. I. Kuwana."

POLYCYRTUS COCKERELLÆ, new species.

Type-locality.—Quirigua, Guatemala.

Type.—Cat. No. 15038, U.S.N.M.

Female.—Length 12.5 mm.; appears to be related to *Polycyrtus fulvipes* Cameron, as described and figured in Cameron's *Biologia Centrali Americana* article, from which it may be known by the following differences: Antennæ apparently as long as the body; the joints of the flagel beyond the annulus more or less faceted, the facets rather bare, elsewhere the antennæ are quite generally hairy; front mostly black, mandibles mostly yellowish or luteous; head almost sculptureless; thorax and propodeum almost sculptureless; pronotum blackish, with pale margins, with a stramineous lamina on the anterior inferior edge and a longitudinal carina between the dorsal and lateral aspects of the pronotum; mesonotum black except for the ridges between it and the scutel, which are yellowish; scutel black, most of sides and posterior edge yellowish; true metanotum blackish on each side; propodeum mostly black between base and basal transverse carina; rest of thorax and propodeum stramineous; tegulæ luteous and stramineous; wings almost colorless, with a brownish tinge, stigma and veins blackish; fore coxæ yellowish, rest of legs mostly of a darker stramineous than the thorax except the onychii which are blackish, the tarsi of fore and mid legs which are brownish, the hind trochanters and femora which are blackish above, the hind tibiæ which are ochreous, and the hind tarsi which are yellowish; abdomen dorsally mostly black, with pale apical and lateral margins, the second dorsal segment also pale at base.

Named for Mrs. W. P. Cockerell, who collected the type.